## SUMMARY OF THE INVENTION

Accordingly, embodiments of the present invention seek to determine the forward price quickly.

A first aspect of the present invention provides a system comprising an obtaining unit obtaining a trade index of a currency pair on a set due date, an interpolating unit interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining unit, a determining unit determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolating unit, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period, a first determining unit determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a

reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day, and a second determining unit determining the tradable price based on the forward price of the reference day determined by the first determining unit.

A second aspect of the present invention provides an information processing device, comprising an obtaining unit obtaining a trade index of a currency pair on a set due date, an interpolating unit interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining unit, a determining unit determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolating unit, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or

a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period, a first determining unit determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day, and a second determining unit determining the tradable price based on the forward price of the reference day determined by the first determining unit.

A third aspect of the present invention provides an information processing method executed by a system, the method comprising, obtaining a trade index of a currency pair on a set due date, interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining,determining, based on

the trade indexes of the first day and the last day of the trade period interpolated by the interpolation, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period, firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day, and secondly determining the tradable price based on the forward price of the reference day determined by the first determination.

A fourth aspect of the present invention provides an information processing method executed by an information processing device, the method comprising,

obtaining a trade index of a currency pair on a set due date, interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining, determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolation, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period, firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day, and secondly determining

the tradable price based on the forward price of the reference day determined by the first determination.

A fifth aspect of the present invention provides a program product for a computer to execute obtaining a trade index of a currency pair on a set due date, interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining, determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolation, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period, firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the

time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day, and secondly determining the tradable price based on the forward price of the reference day determined by the first determination.

## BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a diagram illustrating an example of a system configuration of an information processing system;

Fig. 2 is a diagram illustrating an example of the hardware configuration of a management server;

Fig. 3 is a diagram illustrating an example of a functional configuration of the management server;

Fig. 4 is a sequence diagram illustrating an example of processing of the information processing system;

Fig. 5A is a view illustrating an example of an inquiry screen;

WHAT IS CLAIMED IS:

1. A system, comprising:

an obtaining unit obtaining a trade index of a currency pair on a set due date;

an interpolating unit interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining unit;

a determining unit determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolating unit, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period;

a first determining unit determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to buy the base currency

of the currency pair from the counterparty, the first day of the trade period as the reference day; and

a second determining unit determining the tradable price based on the forward price of the reference day determined by the first determining unit.

2. The system according to claim 1, further comprising a storage unit recording cash management priority information indicating whether or not priority is given to cash management,

wherein the first determining unit determines the first day of the trade period as the reference day when the cash management priority information recorded in the storage unit indicates that cash management is given priority and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, or determines the last day of the trade period as the reference day when the cash management priority information indicates that cash management is given priority and the time option trade is a trade to buy the base currency of the currency pair from the counterparty.

3. The system according to claim 1 or 2,

wherein the first determining unit determines the first day of the trade period as the reference day when the interest rate structure of the trade period is determined as the first interest rate structure by the determining unit and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, or determines the last day of the trade period as the reference day when the interest rate structure of the trade

period is determined as the first interest rate structure by the determining unit and the time option trade is a trade to buy the base currency of the currency pair from the counterparty.

4. The system according to any one of claims 1 to 3, further comprising a cover deal ordering unit ordering, when information indicating that the time option trade is concluded is received, a cover deal of the time option trade based on the reference day determined by the first determining unit.

5. The system according to any one of claims 1 to 4, further comprising:

a limit order accepting unit accepting a limit order price of a leave order; and

a leave order concluding unit concluding a trade at the limit order price accepted by the limit order accepting unit when a difference between the tradable price and the limit order price is smaller than a set threshold.

6. The system according to any one of claims 1 to 5,

wherein the obtaining unit obtains, as the trade indexes of the currency pair on the due date, one of a spread of the currency pair on the due date, a forward price of the currency pair on the due date, and interest rate difference information of the currency pair on the due date, and

wherein the determining unit determines that the interest rate structure of the trade period is the first interest rate structure when the trade index of the first day of the trade period interpolated by the interpolating

unit is larger than the trade index of the last day of the trade period interpolated by the interpolating unit, or determines that the interest rate structure of the trade period is the second interest rate structure when the trade index of the first day of the trade period interpolated by the interpolating unit is smaller than the trade index of the last day of the trade period interpolated by the interpolating unit.

7. The system according to any one of claims 1 to 6,

wherein the interpolating unit performs a linear interpolation of the trade indexes obtained by the obtaining unit, so as to interpolate the trade indexes of the first day and the last day of the trade period in the time option trade.

8. The system according to any one of claims 1 to 7,

wherein the interpolating unit performs a polynomial equation interpolation of the trade indexes obtained by the obtaining unit, so as to interpolate the trade indexes of the first day and the last day of the trade period in the time option trade.

9. An information processing device, comprising:

an obtaining unit obtaining a trade index of a currency pair on a set due date;

an interpolating unit interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining unit;

a determining unit determining, based on the trade indexes of the first day and the last day of the trade

period interpolated by the interpolating unit, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period;

a first determining unit determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determining unit, and the time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day; and

a second determining unit determining the tradable price based on the forward price of the reference day determined by the first determining unit.

10. An information processing method executed by a system, the method comprising:

obtaining a trade index of a currency pair on a set due date;

interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining;

determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolation, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period;

firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day; and

secondly determining the tradable price based on the forward price of the reference day determined by the first determination.

11. An information processing method executed by an information processing device, the method comprising:

obtaining a trade index of a currency pair on a set due date;

interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining;

determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolation, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period;

firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to buy the base currency of the currency pair from the counterparty, the first day of the trade period as the reference day; and

secondly determining the tradable price based on the forward price of the reference day determined by the first determination.

12. A program product for a computer to execute:

obtaining a trade index of a currency pair on a set due date;

interpolating trade indexes of a first day and a last day of a trade period in the time option trade based on the trade index obtained by the obtaining;

determining, based on the trade indexes of the first day and the last day of the trade period interpolated by the interpolation, whether an interest rate structure of the trade period is a first interest rate structure which indicates that a value of a base currency of the currency pair decreases with passage of the period or a second interest rate structure which indicates that the value of the base currency of the currency pair increases with passage of the period;

firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to sell the base currency of the currency pair to a counterparty, the last day of the trade period as a reference day for determining a forward price used for obtaining a tradable price used in the time option trade, or firstly determining, when the interest rate structure of the trade period is determined as the second interest rate structure by the determination, and the time option trade is a trade to buy the base currency of the currency pair

from the counterparty, the first day of the trade period as the reference day; and

secondly determining the tradable price based on the forward price of the reference day determined by the first determination.